

REMARKS

This paper is filed in response to the Non-final Office Action mailed on May 29, 2008 where the Examiner rejected each of claims 1-8, 11-14, 32 and 34 under 35 U.S.C. §103(a). Applicant respectfully submits herein that the references cited by the Examiner in support of these rejections do not teach each and every claim element of the pending claims. In view of the arguments provided below, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of the claims, as provided.

Summary of the Examiner's Rejections

In the Non-final Office Action of May 29, 2008, each of claims 1-8, 11-14, 32 and 34 were rejected as obvious under 35 U.S.C. § 103(a). Claims 1-8, 32 and 34 were specifically rejected under 35 U.S.C. 103(a) as being unpatentable over Bae et al. (US 5,841,355) in view of Datillo (US 4,978,592). The reasoning for the rejection of these claims is as follows:

Bae et al. teach an electrolyte level sensing method for use with a wet battery with automatic means for refilling electrolyte (abstract). The sensor sends feedback concerning the electrolyte level to a microprocessor, and when the electrolyte is below a predetermined level, the microprocessor injects distilled water into the cells (column 2 lines 7-16).

Solenoid valves are used to control water flow in the conduit (column 3 lines 54-58, 64-66).

As for claims 2, 3, and 34, each cell in the system has a sensor and valve (Figure 4; column 3 lines 58-60).

With regard to claims 4 and 5, the microprocessor controls the solenoid valves that control water flow in the conduit (Figure 4 ref. (18); column 3 lines 54-58, 64-66).

As for claims 6-8, Bae et al teach a water injector having a wire-controlled coupler (Figure 3; column 2 line 64 – column 3 line 11). The wire couple acts as the biasing member, and since it

is connected through the wire to the microprocessor, the microprocessor would have information on whether the injector was coupled or not.

Regarding claim 32, since Bae et al. teach all of the components discussed above (not including the claimed electrolyte level sensor, see below), and a method for sensing the electrolyte level, one of ordinary skill in the art would recognize that a method of filling the electrolyte is inherently taught.

The electrolyte level sensor of Bae et al. operates by sensing the concentration of the electrolyte (column 1 lines 9-14) instead of measuring the level based on the top surface of the electrolyte.

Datillo teaches a sensor probe for emersion into the electrolyte of a wet lead acid battery cell. The probe measures the level of electrolyte to ensure that the electrolyte covers the battery plates, and is connected to an electrical circuit (abstract; column 2 lines 40-42; column 9 lines 2-6).

Thus, Bae et al. and Datillo, in combination, were said to render obvious claims 1-8, 32 and 34.

Claims 11, 13 and 14 were also rejected under 35 U.S.C. 103(a) as unpatentable over Bae et al. in view of Datillo and further in view of Parise (US 6,653,022) and Gutlich et al. (US 4,283,467). Specifically, Bae et al. and Datillo were applied as provided above, but were acknowledged as failing to teach a charging sensor or air pump. Parise was argued to teach such a charging sensor, and Gutlich et al. was argued to teach an air pump. Accordingly, a combination of these four references was said to render obvious claims 11, 13, and 14.

Finally, claim 12 was rejected under 35 U.S.C. §103(a) as unpatentable over Bae et al. in view of Datillo, Parise, Gutlich et al. and further in view of Saaski et al. (US 6,265,100). The teachings of Datillo, Parise, and Gutlich were applicable as above, but were acknowledged as failing to account for a Hall Effect charging sensor. Such a sensor was said to be disclosed within Saaski et al. A combination of these four references was said to render claim 12 obvious.

Applicant's argument traversing the Examiner's rejections

Applicant respectfully traverses the rejections of claims 1-8, 11-14, 32 and 34 under 35 U.S.C. §103(a). Each of these claims require a water conduit and an electronic controller that are attached to a battery. This is consistent with the structure of the present invention, which relates to a single, complete electric battery unit with an automatic water system and mixing system. Applicant provides herein why the cited references, particularly Bae et al., teach away from such a single unit battery and, therefore, cannot render obvious the present claims. The rejections of dependent claims 6-9 are also traversed herein, as Applicant believes that a clear articulation of why the claimed invention is obvious has not been provided as required. (See MPEP 2141) Accordingly, Applicant respectfully requests withdrawal of these rejections and allowance of the claims, as currently pending.

Claims 1, 32 and 34

Claims 1, 32 and 34 recite an lead-acid electric battery having an attached water conduit and an electronic controller. By incorporating these elements as part of the battery, these claims provide for a single and complete battery unit. Indeed, such a single, complete battery unit is one of the objects of the present application. (See Objects of the Invention on pages 6-7 of the original specification; and figure 1) Bae et al. teaches away from such a concept by providing a more elaborate and cumbersome water storage tank, which may fill battery unit with water using a water conduit and an electronic controller that are entirely external to the battery itself. To this end, Bae et al. does not relate to a battery unit. Rather, it relates to an external water system for filling a battery.

Turning first to the water conduit, Bae et al. teaches a distilled water injector (figure 3) extending from a water storage tank (exemplified by either 1 or 17), which provides water to a storage cell or battery. Bae et al., however, does not teach or suggest that this water injector is actually attached to the battery. In fact, figure 4 illustrates that the water injector is above the storage cell 21, with no attachment means in place. The specification of Bae et al. does not teach or suggest otherwise. Bae et al. is not a battery but a separate system for watering batteries.

Bae et al. also does not teach that the electronic controller is attached to the battery. Specifically, Bae et al. provides that the water injector contains sensors 20 at the outlet portion 15 with the control wire extending from the sensors to the wire-connector 11, where it is coupled to the terminal box 6 of the water storage tank 1. (Col. 3, lns 1-11). As a matter of logic, the fact that the control wire travels through the water injector and into the water tank infers that the signals derived from sensors 20 are provided to an electronic controller within the water tank. There is nothing within Bae et al. to teach or suggest that the signals from sensors 20 or the electronic controller itself may be provided within the battery.

At best, Bae et al. relates to a separate water tank system for providing water to a battery wherein all of the elements of the system are entirely separate from the actual battery unit. By teaching that all of its components are outside of the battery, Bae et al. inherently teaches away from any proposition of creating a single, complete battery unit, as provided by the present application. “When the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007) (citing *United States v. Adams*, 383 U.S. 39, 50 (1966)). Accordingly, by teaching away from combining a water conduit and

electronic controller with a battery, Bae et al. does not and cannot render obvious these aspects of the present claims.

The auxiliary reference, Datillo, does not assist with these claim elements. Datillo relates to an apparatus and method for indicating low electrolyte levels of a wet battery. Nothing within Datillo relates to a water conduit or a controller that is attached to the battery. Accordingly, Datillo, alone or in combination with Bae et al, also does not provide for all of the claim limitations of claim 1, 32 and 34.

To support a *prima facie* case of obviousness, all claim elements of a claim must be provided by the prior art—see generally MPEP 2143.04—“with some articulated reason [and] some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007). As provided above, the combination of Bae et al and Datillo does not teach either a water conduit or electronic controller that is attached within a battery. In fact, Bae et al. actually teaches away from any proposition of a single battery unit. These two references, therefore, fail to account for all elements of the present claims and fail to support a *prima facie* case of obviousness. Accordingly, under the decision of *KSR*, there cannot be a rational reason or underpinning for combining these references to account for every element of claims 1, 32, and 34. For at least these reasons, Applicant respectfully requests that the rejection of claims 1, 32, and 34 be withdrawn.

Claims 2-8 and 11-14

Claims 2-8 and 11-14, depending from claim 1, include each of the claim elements contained therein. As indicated above, claim 1 provides for a water conduit and electronic controller attached to a battery, thus forming a single battery unit. Neither Bae et al. nor Datillo teach or suggest either of these elements. Other cited references, namely Parise, Gutlich et al.,

and Saaski et al., also do not teach or suggest these elements of claim 1. Parise and Saaski et al. independently relate to different aspects of charging a battery. Gutlich et al. relates to an apparatus and method of mixing electrolytes within a battery. Accordingly, none of the five references cited by the Examiner teach all of the limitations of claims 1-8 and 11-14, as required to support a *prima facie* case of obviousness. For at least these reasons, Applicant respectfully requests that the rejection of claims 2-8 and 11-14 be withdrawn.

Claims 6-8

Applicant also traverses the rejection of claims 6-8, which is believed to have been made without any support in the recited references. Applicant's claim 6 is dependent from claim 1 and recites a biasing member spaced between a coupling and a fitting with a movable latch attached thereto. This biasing member is specifically recited as biasing the fitting away from the coupling, which is attached to the battery. The latch temporarily holds the fitting in an engagement with the coupling against the force of the biasing member. Claim 7 recites that the latch is electrically actuatable between positions, and claim 8 recites that a sensor generates signals of engagement and disengagement of fitting with coupling in communication with the controller. Again, each of these elements is consistent with the single battery unit inventive concept of the present invention.

Not all of these claim elements are taught or suggested by Bae et al. At best, Bae et al. is directed toward control wire connector 11 and injection hose quick coupling 12 components of the injector that are receivable by the terminal box 6 of the water supply 1. There is nothing within Bae et al. suggesting that the injector may also be received by a coupling of the battery. While the present office action suggests that the wire couple acts as a biasing member, this

element relates to attachment to the water tank, not the battery. Moreover, the Applicant is not provided with an indication of how Bae et al. teaches an electrically actuatable latch. Indeed, Applicant asserts that this element is missing entirely from the teachings of Bae et al.

Applicant respectfully requests that factual support be provided in accordance with MPEP 2412. Without such a showing, Applicant respectfully asserts that the burden of showing *prima facie* obviousness of claims 6-8 has not been met, and withdrawal of the rejection is respectfully requested.

Conclusion

Applicant has shown, in the arguments presented above, that pending claims 1-8, 11-14, 32 and 34 of the present application are not obvious in view of Bae et al., or any reference cited in conjunction with Bae et al., because these references fail to teach or suggest all of the claim elements. Applicant, thereby, contends that this application is in a condition for allowance and an early notice to this effect is earnestly solicited. Should Examiner have any questions or comments with respect to this response, it is respectfully requested that the Examiner telephone the undersigned at (215) 299- 2772 to discuss.

To the extent there are any fees required in connection with the receipt, acceptance and/or consideration of this paper and/or any accompanying papers submitted herewith, including extension fees, the Commissioner is authorized to charge all such fees to Deposit Account 50-1943.

Respectfully submitted,

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